CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ORDER NO. 78-14

NPDES PERMIT NO. CA0006157

WASTE DISCHARGE REQUIREMENTS FOR

STAUFFER CHEMICAL COMPANY
RICHMOND PLANT

The California Regional Water Quality Control Board, San Francisco Bay Region, hereinafter Board, finds that:

1. Stauffer Chemical Company, hereinafter discharger, submitted a report of waste discharge dated August 25, 1977, for reissuance of NPDES Permit No. CA0006157 for its plant in Richmond, California.

2. The discharger intermittently discharges:

   a. Cooling tower blowdown for the manufacture of titanium trichloride, alum, and Vapan ( a soil sterilant), stack scrub water from the manufacture of titanium trichloride, and storm water runoff from production and handling areas of various agricultural and industrial chemicals. Storm water runoff from the areas where agricultural chemicals are handled is collected and checked for COD as an indication of pesticide content. Runoff which is highly contaminated with pesticides is hauled to a Class I disposal site while the remainder is routed to an activated carbon treatment system. Effluent from the carbon system is blended with all other wastewaters then neutralized and clarified prior to discharge. The average discharge rate, excluding periods of no discharge, is 0.1 mgd, but storm water runoff may increase the total discharge to about 1.5 mgd. The discharge rate varies considerably with runoff because runoff is the major component of the discharge. The treated effluent is discharged into a tidal basin tributary to San Francisco Bay, a navigable water of the United States, near the foot of South 51st Street in Richmond (001).

   b. Storm runoff from undeveloped areas in the plant site and from adjoining areas into the tidal basin described in 2.a. above at a point near the foot of South 49th Street in Richmond (002).

3. The discharger has confined cinders from a discontinued plant operation in an inactive landfill area east of and adjacent to the tidal basin by sealing and grading that area to prevent infiltration and leaching by rain water or tidal waters. These cinders contain leachable acidic heavy metal salts (003).

4. The Board prescribed waste discharge requirements for the discharger by adopting Order No. 73-12 on February 27, 1973, and amended them by adopting Order No. 74-7 on January 22, 1974. Order No. 73-12, as amended, expires February 27, 1978.

5. The Board adopted a Water Quality Control Plan for the San Francisco Bay Basin in April 1975.

6. The beneficial uses of northern San Francisco Bay are:

   a. Recreation
   b. Aesthetic enjoyment
   c. Preservation and enhancement of fish, wildlife, and other aquatic resources

7. Effluent limitations and toxic effluent standards which have been or may be established pursuant to Section 301, 302, 304, and 307 of the Federal Water Pollution Control Act are applicable to discharge 001.

8. These requirements will serve as a permit for the National Pollutant Discharge Elimination System pursuant to Section 402 of the Federal Water Pollution Control Act.

9. This project involves the continued operation of a privately-owned facility with negligible or no expansion of use beyond that previously existing. Consequently, this project will not have a significant effect on the environment based upon the exemption provided in Section 15101, Title 14, California Water Code.

10. The Board has notified the discharger and interested agencies and persons of its intent to prescribe waste discharge requirements for the discharger by reissuing NPDES Permit No. CA0006157 and has provided them an opportunity for a public meeting and an opportunity to submit their written views and recommendations.

11. The Board, in a public meeting, heard and considered all comments pertaining to the discharge.

IT IS HEREBY ORDERED, Stauffer Chemical Company, in order to meet the provisions contained in 5, 6, and 7 above, shall comply with the following:

A. Effluent Limitations

1. Neither the treatment nor the disposal of waste shall create a nuisance as defined in Section 13050(m) of the California Water Code.

2. Representative samples of Waste 001 as discharged into public waters shall not contain constituents in excess of the following limits:

| Constituents | Units | 30-Day Mean | Daily Maximum |
|---|---|---|---|
| Settleable Matter | ml/l-hr | 0.1 | 0.5 |
| Total Aluminum | kg/day | - | 11.3 |
| | mg/l | - | 2.0 |
| Total Suspended Matter | kg/day | - | 113 |
| | mg/l | 15 | 20 |
| Thiocarbamates [a/] | mg/l | 0.025 | 0.050 |
| | kg/day | 0.014 | 0.035 |

a/To be measured in effluent from activated carbon treatment system. This includes Eptam, Ordram, Ro-Neet, and Tillam.

3. The effluent pH shall not be less than 6.5 or greater than 8.5.

4. The survival of test fishes in 96-hour bioassays of the effluent shall be a median of 90 percent survival and a 90 percentile value of not less than 70 percent survival.

B. Receiving Water Limitations

1. The discharge of Waste 001 shall not cause:

a. Floating, suspended, or deposited macroscopic particulate matter or foam in waters of the State at any place;

b. Bottom deposits or aquatic growths at any place;

c. Alteration of terperature, turbidity or apparent color beyond present natural background levels in waters of the State at any place;

d. Visible, floating, suspended or deposited oil or other products of petroleum origin in waters of the State at any place;

e. Tidal waters of the State to exceed the following limits of quality at any place offshore from the Santa Fe railroad bridge:

| | |
|---|---|
| Dissolved Oxygen | Minimum - 5.0 mg/l<br>Annual median - 80% saturation<br><br>When natural factors cause lesser concentrations, then this discharge shall not cause further reduction in the concentration of dissolved oxygen. |
| Toxic or Other Deleterious Substances | None shall be present in concentrations or quantities which will cause deleterious effects on aquatic biota, wildlife or waterfowl or which render any of these unfit for human consumption either at levels created in the receiving waters or as a result of biological concentrations. |
| pH | A variation of the natural ambient pH by more than 0.2 pH units. |
| Un-ionized Ammonia (as N) | Maximum 0.4 mg/l<br>Annual median 0.025 mg/l |

2. The discharge of Waste 002 shall not cause:

a. Visible, floating, suspended, or deposited oil or other products of petroleum origin in waters of the State at any place;

b. Floating, macroscopic particulate matter or foam in waters of the State at any place.

3. The discharge of Waste Nos. 001 or 002 shall not cause a violation of any other applicable existing water quality standard for the receiving water adopted pursuant to the Federal Water Pollution Control Act and implementing regulations. If a more stringent applicable water quality standard is promulgated or approved pursuant to Section 303 of the Federal Water Pollution Control Act and implementing regulations, the Regional Board shall revise or modify this Order in accordance with those standards.

C. Confinement Specifications -- Waste 003

1. The discharge of any waste from the disposal area to the surface or groundwater of the State is prohibited. Waste material and any water that has contacted waste material shall be contained in the designated disposal area shown on Attachment "A".

2. The disposal area shall be adequately protected against any washout or erosion of wastes or covering material. Adequate protection is defined as protection from at least a 100-year flood or storm and from the highest tidal stage that may occur.

3. The exterior surfaces of the disposal area shall be protected from infiltration by barriers comprised of soil or other material having a permeability of $10^{-7}$ cm/sec or less.

4. The exterior faces of barriers shall be protected from erosion and raveling or from actions of rodents to maintain the effectiveness of the barrier.

5. The exterior surfaces of the disposal area, having been pretreated and graded, as specified above, shall be maintained to promote lateral runoff and to prevent ponding.

6. The discharger shall remove and relocate any wastes which are discharged at this site in violation of these requirements.

D. Provisions

1. The discharger, in consultation with the Regional Board staff, shall develop specifications for a study of the activated carbon treatment system effluent by April 28, 1978. The study will be designed to develop data for alternative methods of measuring the effectiveness of that system. This study shall be completed by May 1, 1979, and the Board will consider revising the thiocarbamate requirements in Section A.2. within ninety (90) days of that time.

2. The discharger shall submit to the Board, by January 30 of each year, an annual summary of the quantities of all chemicals, listed by both trade and chemical names, which are used for cooling and/or boiling water treatment and which are discharged.

3. This permit includes the attached "Standard Provisions, Reporting Requirements and Definitions," dated April 1977 except for item 3 of Section B.

4. The discharger shall notify the Board not later than 180 days in advance of implementation of any plans to alter production capacity of the product line of the manufacturing, producing or processing facility by more than ten percent. Such notification shall include estimates of proposed production rate, the type of process, and projected effects on effluent quality. Notification shall include submittal of a new report of waste discharge and appropriate filing fee.

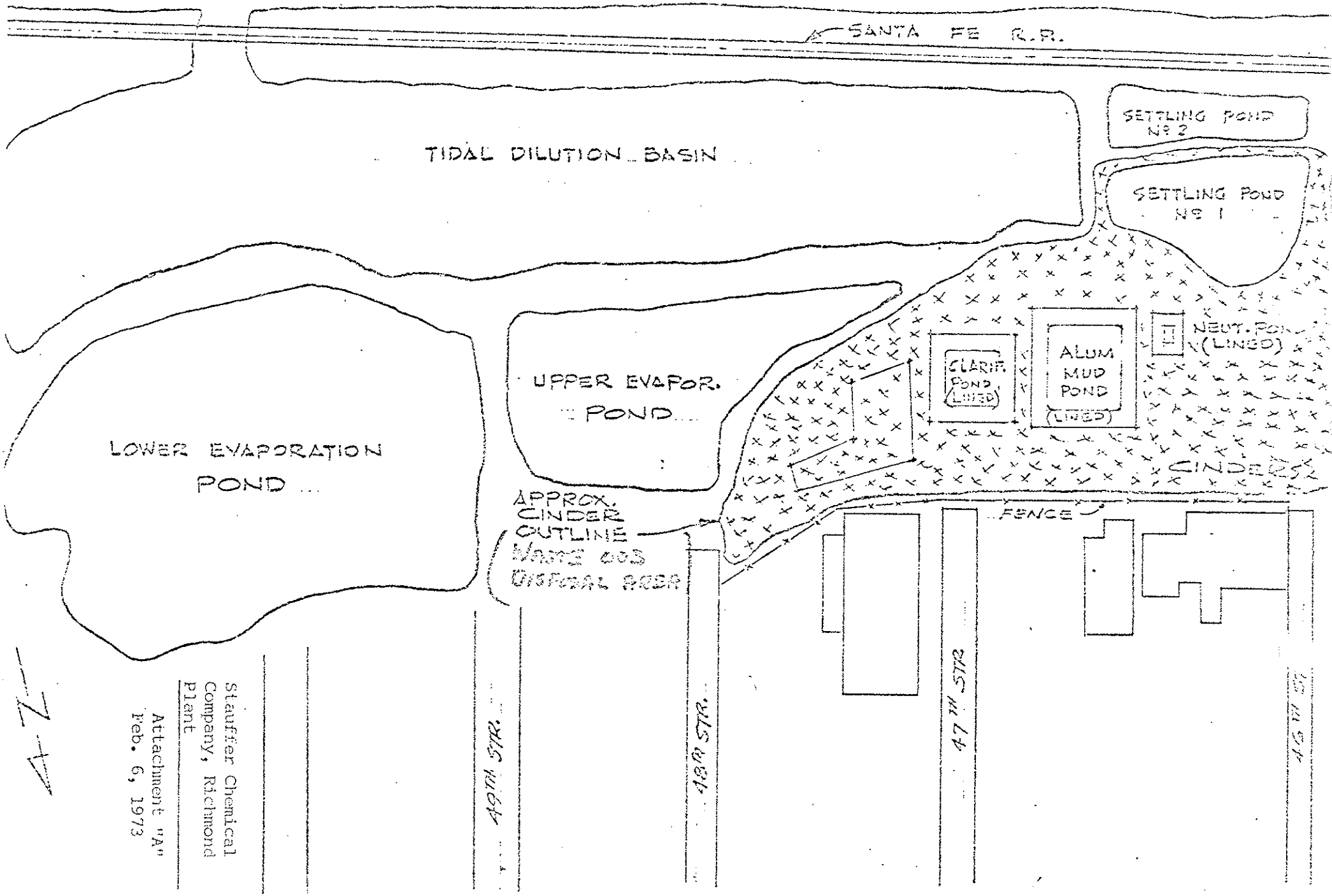
5. This Order becomes effective upon expiration of Order No. 73-12, as amended, on February 27, 1978.

6. This Order expires February 27, 1983, and Stauffer Chemical Company must file a report of waste discharge no later than 180 days in advance of such date for issuance of new waste discharge requirements.

I, Fred H. Dierker, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on February 21, 1978.

FRED H. DIERKER
Executive Officer

Attachments:
Standard Provisions, Reporting Requirements and Definitions, dated April 1977
Map of disposal site 003
Self-Monitoring Program




Stauffer Chemical Company, Richmond Plant

Attachment "A"
Feb. 6, 1973

RICHMOND WATER POLLUTION ABATEMENT — PLAN
SOUTHERN AREA — SCALE: 1" = 200'

FILE No 5414
AP No 200-437

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

SELF-MONITORING PROGRAM
FOR

Stauffer Chemical Company, Richmond

NPDES NO. CA 0006157

ORDER NO. 78-14

CONSISTS OF

PART A, dated January 1978

AND

PART B

PART B

I. DESCRIPTION OF SAMPLING STATIONS

A. EFFLUENT

| Station | Description |
|---|---|
| E-001 | At any point in the E-001 waste stream from the treatment facilities between the point of discharge and the point at which all waste tributary to that outfall is present. |
| E-002-1 through E-002-'n' | At any point in each storm runoff waste stream into the tidal basin tributary to San Francisco Bay at which all waste tributary to that stream is present. |
| RP | At a point in the runoff waste stream from the process and storage areas. |

B. RECEIVING WATER

| Station | Description |
|---|---|
| C-1-1 through C-1-'n' | At a point in the Tidal Dilution Basin, located at each point of discharge (including storm runoff). |
| C-2 | At a point in the Tidal Dilution Basin, located immediately prior to discharge to the culvert. |
| C-R | At a point in San Francisco Bay, located immediately southerly of the Santa Fe Railroad bridge. |

C. LAND OBSERVATIONS

| Station | Description |
|---|---|
| P-1 through P-'n' | Located along the periphery of the waste treatment or disposal facilities at equidistant intervals not to exceed 200 feet. (A sketch showing the locations of these stations will accompany each report.) |
| L-1 through L-'n' | Located along the perimeter of the landfill site containing waste 003 at equidistant intervals not to exceed 100 feet. (A sketch showing the locations of these stations will accompany each report.) |

II. SCHEDULE OF SAMPLING, MEASUREMENTS AND ANALYSIS

A. The schedule of sampling, measurements and analysis shall be that given in Table I.

III. MODIFICATION OF PART "A", DATED 1/78

A. Exclusions: Paragraphs C.3., C.4., C.5.c., C.5.d., D.1., D.4.b., and E.4.

B. Modifications: Paragraph D.3.b.: Replace "... period of lower slack water." with "... end of high tide water period." and delete "where sampling at lower slack water period is not practical, sampling shall be performed during higher slack water period."

I, Fred H. Dierker, Executive Officer, hereby certify that the foregoing self-monitoring program:

1. Has been developed in accordance with the procedure set forth in this Regional Board's Resolution No. 73-16 in order to obtain data and document compliance with waste discharge requirements established in the Regional Board Order No. 78-14.

2. Becomes effective on the "Date Ordered", below.

3. May be reviewed at any time subsequent to the effective date upon written notice from the Executive Officer on request from the discharger. Revisions will be ordered by the Executive Officer.

FRED H. DIERKER
Executive Officer

Date Ordered February 21, 1978

Attachments to Part B:
Table I

# TABLE I

## SCHEDULE FOR SAMPLING, MEASUREMENTS, AND ANALYSIS

| Sampling Station | E-001 | | | E-002-1 thru E-002-n | | All "C" Sta. | | P | L | RP | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| *TYPE OF SAMPLE* | G | C-X | Cont | G | | G | | | | | | | |
| Flow Rate (mgd) | | | D | | | | | | | | | | |
| BOD, 5-day, 20° C, or COD (mg/l & kg/day) | | | | | | | | | | | | | |
| Chlorine Residual & Dosage (mg/l & kg/day) | | | | | | | | | | | | | |
| Settleable Matter (ml/1-hr. & cu. ft./day) | D | | | | | | | | | | | | |
| Total Suspended Matter (mg/l & kg/day) | | 2/W | | | | | | | | | | | |
| Oil & Grease (mg/l & kg/day) | | | | | | | | | | | | | |
| Coliform (Total or Fecal) (MPN/100 ml) per req't | | | | | | | | | | | | | |
| Fish Toxicity, 96-hr. $TL_{50}$ % Survival in undiluted waste | | M | | | | | | | | E (1) | | | |
| Ammonia Nitrogen (mg/l & kg/day) | | | | | | | | | | | | | |
| Nitrate Nitrogen (mg/l & kg/day) | | | | | | | | | | | | | |
| Nitrite Nitrogen (mg/l & kg/day) | | | | | | | | | | | | | |
| Total Organic Nitrogen (mg/l & kg/day) | | | | | | | | | | | | | |
| Total Phosphate (mg/l & kg/day) | | | | | | | | | | | | | |
| Turbidity (Jackson Turbidity Units) | | | | | | | | | | | | | |
| pH (units) | | | cont | | | 2W | | | | | | | |
| Dissolved Oxygen (mg/l and % Saturation) | | | | | | 2W | | | | | | | |
| Temperature (°C) | 2W | | | | | 2W | | | | | | | |
| Apparent Color (color units) | | | | | | 2W | | | | | | | |
| Secchi Disc (inches) | | | | | | 2W | | | | | | | |
| Sulfides (if DO < 5.0 mg/l) Total & Dissolved (mg/l) | | | | | | 2W | | | | | | | |
| Arsenic (mg/l & kg/day) | | | | | | | | | | | | | |
| Cadmium (mg/l & kg/day) | | | | | | | | | | | | | |
| Chromium, Total (mg/l & kg/day) | | | | | | | | | | | | | |
| Copper (mg/l & kg/day) | | | | | | | | | | | | | |
| Cyanide (mg/l & kg/day) | | | | | | | | | | | | | |
| Silver (mg/l & kg/day | | | | | | | | | | | | | |
| Lead (mg/l & kg/day) | | | | | | | | | | | | | |

## TABLE I (continued)
## SCHEDULE FOR SAMPLING, MEASUREMENTS, AND ANALYSIS

| Sampling Station | E-001 | | | E-002-1 thru E-002-n | | All "C" Sta. | | P | L | RP | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| *TYPE OF SAMPLE* | G | C-X | Cont | G | | G | | | | | | | |
| Mercury (mg/l & kg/day) | | | | | | | | | | | | | |
| Nickel (mg/l & kg/day) | | | | | | | | | | | | | |
| Zinc (mg/l & kg/day) | | | | | | | | | | | | | |
| PHENOLIC COMPOUNDS (mg/l & kg/day) | | | | | | | | | | | | | |
| All Applicable Standard Observations | D | | | E (2)(1) | | 2W | | 2/W | 2/W | | | | |
| Bottom Sediment Analyses and Observations | | | | | | | | | | | | | |
| Total Identifiable Chlorinated Hydrocarbons (mg/l & kg/day) | | | | | | | | | | | | | |
| Aluminum | | 2W | | | | | | | | | | | |
| Thicarbamates (mg/l & kg/day) | | M (3) | (4) | | | | | | | | | | |
| Un-ionized Ammonia as N (mg/l) | | | | | | 2W | | | | | | | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |

### LEGEND FOR TABLE

#### TYPES OF SAMPLES

G = grab sample
C-24 = composite sample - 24-hour
C-X = composite sample - X hours (used when discharge does not continue for 24-hour period)
Cont = continuous sampling
DI = depth-integrated sample
BS = bottom sediment sample
O = observation

#### TYPES OF STATIONS

I = intake and/or water supply stations
A = treatment facility influent stations
E = waste effluent stations
C = receiving water stations
P = treatment facilities perimeter stations
L = basin and/or pond levee stations
B = bottom sediment stations
G = groundwater stations

#### FREQUENCY OF SAMPLING

E = each occurence
H = once each hour
D = once each day
W = once each week
M = once each month
Y = once each year

2/H = twice per hour
2/W = 2 days per week
5/W = 5 days per week
2/M = 2 days per month
2/Y = once in March and once in September
Q = quarterly, once in March, June, Sept. and December

2H = every 2 hours
2D = every 2 days
2W = every 2 weeks
3M = every 3 months
Cont = continuous

FOOTNOTES FOR TABLE I

(1) To be sampled during the initial portion of each storm runoff period (not more than twice per month).

(2) Qualitative observation and description.

(3) If any measurements is in excess of the mean limitation, this constituent shall be measured weekly to determine monthly averages for the following month.

(4) This is to be measured in the effluent from the activated carbon system prior to dilution with additional wastewaters.